

Ser. No.10/089,903
Amdt. dated August 1, 2008
Reply to Office Action of April 3, 2008

PF990066

RECEIVED
CENTRAL FAX CENTER

AUG 01 2008

Remarks/Arguments

35 U.S.C. §103

Claims 1-3, and 5-6, stand rejected under 35 U.S.C. §103(a) as being unpatentable over Naimpally (U.S. Patent No. 5,619,337), Yoneda et al. (EP 0 841 819), and Sato (U.S. Patent No. 6,009,078).

Present claim 1, recites a method for recording data in a digital video processing device connectable to a recording medium, comprising the steps of: receiving a stream of data packets, each data packet being associated with one of N packet identifiers; providing N ($N > 1$) buffers for receiving respectively packets corresponding to one of N packet identifiers; monitoring a total sum quantity of data stored in the plurality of N buffers; and triggering a writing process of the data contained in the plurality of buffers to the recording medium when said total sum quantity of data reaches a predetermined level, said predetermined level being dependant on at least one characteristic of the recording medium.

First, applicants submit that Sato addresses a distinctly different problem than that addressed by the present invention. Thus, it is respectfully submitted that Sato is non-analogous art, not in the same field of endeavor as the claimed subject matter, and that the combination of Sato with the teachings of Naimpally and Yoneda is not obvious. It is further respectfully submitted that Naimpally, Yoneda and Sato were improperly combined by Examiner, and that the Office Action therefore fails to provide an appropriate combination of references which disclose a method for "monitoring a total sum quantity of data stored in the plurality of N buffers; and triggering a writing process of the data contained in the plurality of buffers to the recording medium when said total sum quantity of data reaches a predetermined level, said predetermined level being dependant on at least one characteristic of the recording medium," as recited by claim 1.

Naimpally teaches a system that "records a single program from a multi-program transport stream that is encoded according to the MPEG-2 standard. The system demultiplexes transport packets from the multi-program transport stream and records the demultiplexed packets on a digital video cassette recorder (DVCR). The system includes circuitry in the encoder which emulates a buffer in the digital recorder that is used to hold

Ser. No.10/089,903

PF990066

Amdt. dated August 1, 2008

Reply to Office Action of April 3, 2008

the packets to convert the bursty packet data into constant rate data for recording. This emulated buffer controls the overall rate at which packets of the selected program are inserted into the multi-program transport stream by the encoder. As each packet is recorded, a time stamp value, representing when the packet was demultiplexed and a clock count value, representing a number of pulses of a high-frequency system clock signal that occurred during a predetermined number of bytes of the demultiplexed packet are recorded with the demultiplexed packet." (Naimpally Abstract)

The Office Action asserts that Naimpally teaches "a recording system, hence a method, to record one or more programs from a multi-program transport stream, comprising the steps of: (1) receiving a stream of data packets, each data packet being associated to one of N packet identifier (PID) (column 3, lines 9-15; column 7, lines 26-39; column 8, lines 5-32); (2) providing N (N)1 buffers, for receiving respectively packets corresponding to one of N packet identifiers ("components 122,124,126", "buffer 130" in Fig. 1A; column 3, line 62 - column 4, line 6)." (Office Action, page 4)

The Office Action admits that Naimpally fails to disclose a method for "monitoring a total sum quantity of data stored in the plurality of N buffers," as described in the present invention. (Office Action, page 5) Therefore, Naimpally fails to disclose a method for "monitoring a total sum quantity of data stored in the plurality of N buffers; and triggering a writing process of the data contained in the plurality of buffers to the recording medium when said total sum quantity of data reaches a predetermined level, said predetermined level being dependant on at least one characteristic of the recording medium," as recited in claim 1.

Yoneda teaches "coding of multimedia data including video data and audio data is implemented as a software program operating on a multitask operating system, and video/audio coded and multiplexed information in which video/audio synchronization is realized in specified time units is obtained. In this method, coded video information and coded audio information are temporarily stored in a video buffer and an audio buffer, respectively. A video/audio synchronization means creates time information using video block rate information which is created on the basis of the coded video information and

Ser. No.10/089,903

PF990066

Amdt. dated August 1, 2008

Reply to Office Action of April 3, 2008

stored with the coded video information. According to the time information, a coded video read-out means and a coded audio read-out means read the coded video information and the coded audio information from the respective buffers, and the video/audio synchronization means performs video/audio multiplexing. Thereby, the coding process and the multiplexing process are performed at independent timings.” (Yoneda Abstract)

The Office Action asserts that Yoneda teaches “using the same recording medium (column 47, lines 8-11) and monitoring the total quantity of data stored in a buffer and triggering a writing process of data stored in the buffer to recording medium when the total quantity data reaches a predetermined level, specifically, when the buffer is full (column 47, lines 7-15). Yoneda et al. also teach the predetermined level corresponds to the size of a data recording unit on the recording medium, minus the quantity of space reserved to service information, thus, dependant on at least one characteristic of the recording medium.” (Office Action, page 4)

The Office Action admits that Yoneda fails to disclose a method for “monitoring a total sum quantity of data stored in the plurality of N buffers,” as described in the present invention. (Office Action, page 5) Therefore, Yoneda, like Naimpally, fails to disclose a method for “monitoring a total sum quantity of data stored in the plurality of N buffers; and triggering a writing process of the data contained in the plurality of buffers to the recording medium when said total sum quantity of data reaches a predetermined level, said predetermined level being dependant on at least one characteristic of the recording medium,” as recited in claim 1.

Sato teaches “an ATM switch device having a plurality of input ports and a plurality of output ports, a port buffer is arranged for each of the output ports and is given a minimum guaranteed value which represents the minimum number of output cells sent to each output port even when traffic congestion takes place at the other output ports. A total queue monitoring buffer is also arranged to monitor a total number of output cells which is equal to a total sum of the minimum guaranteed values determined for the respective output ports and is counted up only when the counts of the port buffers exceed the minimum guaranteed values. With this structure, it is possible to detect traffic congestion all over the

Ser. No.10/089,903

PF990066

Amdt. dated August 1, 2008

Reply to Office Action of April 3, 2008

ATM switch device by the total queue monitoring buffer and to assure delivery of the output cells equal to the minimum guaranteed value. Each minimum guaranteed value may be determined for each service class and a multicast cell." (Sato Abstract)

The Office Action asserts that Sato "discloses monitoring a total sum quantity of data stored in the plurality of N buffers (column 5, lines 18-31)." (Office Action, page 7)

Sato proposes an asynchronous transfer mode (ATM) switch which has a plurality of input and output ports, a port buffer arranged for each of the output ports and a minimum guaranteed value which represents the minimum number of output cells sent to each output port when traffic congestion takes place at the other output ports. Sato is concerned with detecting traffic congestion on a network to "assure delivery of the output cells equal to a minimum guaranteed value." (Sato Abstract) In contrast, Sato is not concerned with writing data, such as compressed video, audio and auxiliary data, to a recording medium, and in particular, with managing the write buffers of a device, as recited in the present claims. Therefore, it is respectfully submitted that Sato is non-analogous art and is not in the same field of endeavor as the claimed subject matter.

Furthermore, the combination of Sato with the teachings of Naimpally and Yoneda is non-obvious because Sato addresses a distinctly different problem. First, Sato uses buffers prior to transmission, unlike the present invention which uses buffers prior to recording. Secondly, Sato teaches the use of ATM, which is used to send small fixed groups of data cells across a network at fast transmission speeds, and thus is not concerned with digital video comprising several layers, as described in the present claims. Finally, Sato is concerned with monitoring the total quantity of data to save memory space in the buffers for the purpose of reducing the memory used for monitoring. In contrast, the present invention monitors the total quantity of data in the buffers in order to avoid sending stuffing bits to the recording medium for the purpose of reducing the space used on the recording medium.

Therefore, for at least these reasons, Sato is not analogous art and addresses a distinctly different problem than that as the present invention. Furthermore, the

Ser. No.10/089,903

PF990066

Amdt. dated August 1, 2008

Reply to Office Action of April 3, 2008

combination of Sato with Naimpally and Yoneda is non-obvious because Sato deals with a distinctly different problem. Thus, it is respectfully submitted that there is no motivation to incorporate the teachings of Sato into the recording method disclosed by Naimpally and Yoneda. Therefore, it is respectfully asserted that the Office Action fails to show teachings in analogous art concerning a method for "monitoring a total sum quantity of data stored in the plurality of N buffers; and triggering a writing process of the data contained in the plurality of buffers to the recording medium when said total sum quantity of data reaches a predetermined level, said predetermined level being dependant on at least one characteristic of the recording medium," as recited in claim 1.

It is also respectfully submitted that the suggested combination of references constitutes impermissible hindsight to arrive at the determination of obviousness by using the claimed invention as an instruction manual or template to piece together the teachings of the Naimpally, Yoneda and Sato prior art.

In view of the above remarks, it is respectfully submitted that pending claims 1-3 and 5-6 are patentably distinguishable over the cited prior art references. Thus, it is respectfully requested that this be withdrawn.

Claim 4 is rejected under 35 U.S.C. §103(a) as being unpatentable over Naimpally (U.S. Patent No. 5,619,337), Yoneda et al. (EP 0 841 819), and Sato (U.S. Patent No. 6,009,078), as applied to claims 1-3 and 5-6 above, and further in view of Deo et al. (U.S. Patent No. 6,304,914).

Since claim 4 is dependent from claim 1, which is allowable for, at least, the reasons described above, it is respectfully asserted that it too is allowable for at least the same reasons as claim 1. Thus, it is further respectfully requested that this rejection be withdrawn.

Having fully addressed the Examiner's rejections it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the

Ser. No.10/089,903

PF990066

Amdt. dated August 1, 2008

Reply to Office Action of April 3, 2008

Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicant's representative at (609) 734-6815, so that a mutually convenient date and time for a telephonic interview may be scheduled.

No fee is believed due. However, if a fee is due, please charge the additional fee to Deposit Account 07-0832.

Respectfully submitted,
Franck ABELARD, et al.



By: Paul P. Kiel
Reg. No. 40,677
Phone (609) 734-6815

Patent Operations
Thomson Licensing Inc.
P.O. Box 5312
Princeton, New Jersey 08543-5312

Date: 7/31/08